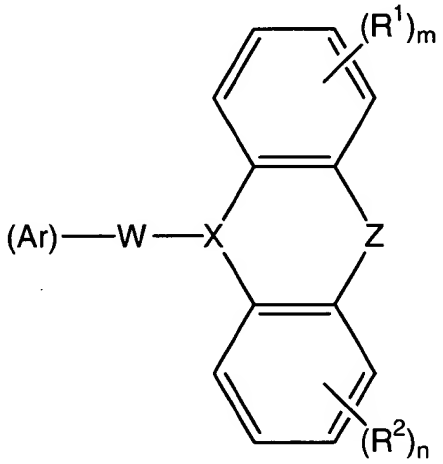
Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1. (Presently Amended) A compound of the following Formula I:



I

wherein Ar is ~~optionally substituted carbocyclic aryl or optionally substituted~~ an optionally substituted heteroaromatic group having at least one amino substituent;

W is a chemical bond, optionally substituted amino, optionally substituted alkylene having 1 to about 3 carbon atoms, or aminoalkylene having 1 nitrogen and 1 or 2 carbon atoms;

X is nitrogen ~~or carbon~~;

Z represents ~~a chemical bond, optionally substituted methylene,~~ optionally substituted ethylene~~,~~ or optionally substituted vinyl~~, optionally substituted azamethinyl, optionally substituted azamethylene, O, S, or optionally substituted N, or Z represents non-linked substituents on each phenyl group~~;

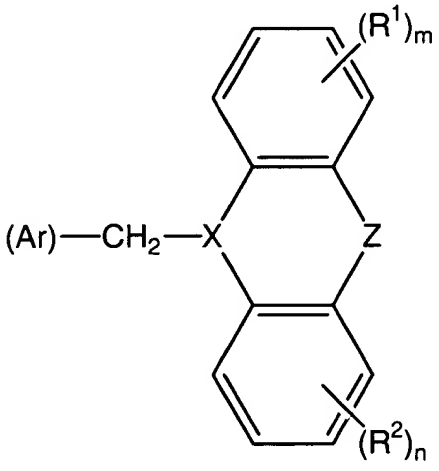
each R^1 and R^2 independently may be halogen, amino, hydroxy, nitro, azido, optionally substituted alkyl ~~preferably~~, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted alkoxy, optionally substituted aminoalkyl, optionally substituted alkanoyl, optionally substituted alkylthio, optionally substituted alkylsulfinyl, optionally substituted alkylsulfonyl, optionally substituted carbocyclic aryl, or optionally substituted heteroaromatic, or optionally substituted heteroalicyclic;

m and n are each independently an integer of from 0 to 4; and pharmaceutically acceptable salts thereof.

A3

2. (Cancelled).

3. (Presently Amended) A compound of the following Formula II:



II

wherein Ar is ~~optionally substituted carbocyclic aryl or optionally substituted~~an optionally substituted heteroaromatic group having at lease one amino substituent;

Z represents ~~a chemical bond, optionally substituted methylene,~~ optionally substituted ethylene, or optionally substituted vinyl~~, optionally substituted azamethinyl, optionally~~

~~substituted azamethylene, O, S, or optionally substituted N, or Z represents non-linked substituents on each phenyl group~~;

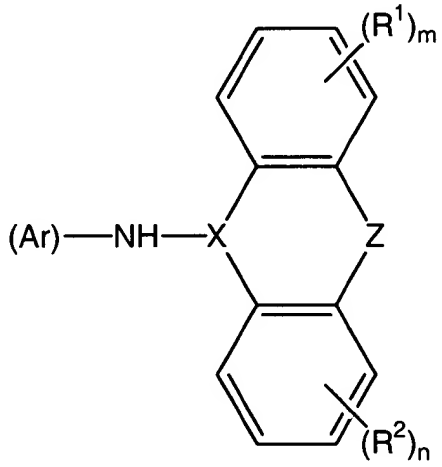
X is nitrogen~~ or carbon~~;

each R^1 and R^2 independently may be halogen, amino, hydroxy, nitro, azido, optionally substituted alkyl~~ preferably~~, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted alkoxy, optionally substituted aminoalkyl, optionally substituted alkanoyl, optionally substituted alkylthio, optionally substituted alkylsulfinyl, optionally substituted alkylsulfonyl, optionally substituted carbocyclic aryl, or optionally substituted heteroaromatic, or optionally substituted heteroalicyclic;

A3

m and n are each independently an integer of from 0 to 4; and pharmaceutically acceptable salts thereof.

4. (Presently Amended) A compound of the following Formula IIA:



IIA

wherein Ar is optionally substituted carbocyclic aryl or optionally substituted heteroaromatic;

Z represents ~~a chemical bond, optionally substituted methylene,~~ optionally substituted ethylene~~,~~ or optionally substituted vinyl~~, optionally substituted azamethinyl, optionally substituted azamethylene, O, S, or optionally substituted N, or Z represents non-linked substituents on each phenyl group~~;

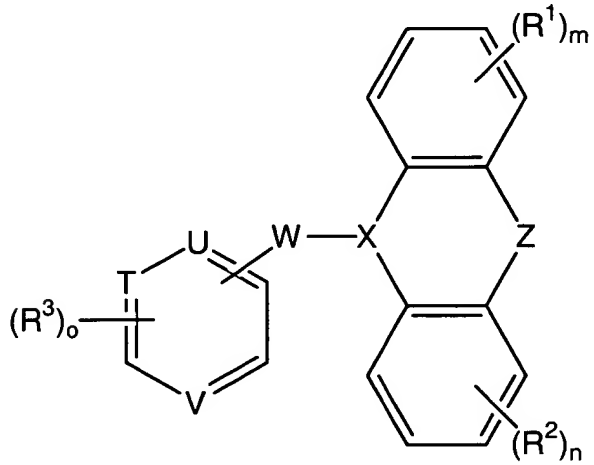
X is nitrogen ~~or carbon~~;

each R^1 and R^2 independently may be halogen, amino, hydroxy, nitro, azido, optionally substituted alkyl ~~preferably~~, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted alkoxy, optionally substituted aminoalkyl, optionally substituted alkanoyl, optionally substituted alkylthio, optionally substituted alkylsulfinyl, optionally substituted alkylsulfonyl, optionally substituted carbocyclic aryl, or optionally substituted heteroaromatic, or optionally substituted heteroalicyclic;

A3

m and n are each independently an integer of from 0 to 4; and pharmaceutically acceptable salts thereof.

5. (Presently Amended) A compound of the following Formula III:



III

T, U and V are each independently optionally substituted carbon, or optionally substituted nitrogen wherein at least one of T, U, or V is optionally substituted nitrogen;

W is a chemical bond, optionally substituted amino, optionally substituted alkylene having 1 to about 3 carbon atoms, or aminoalkylene having 1 nitrogen and 1 or 2 carbon atoms;

X is nitrogen ~~or carbon~~;

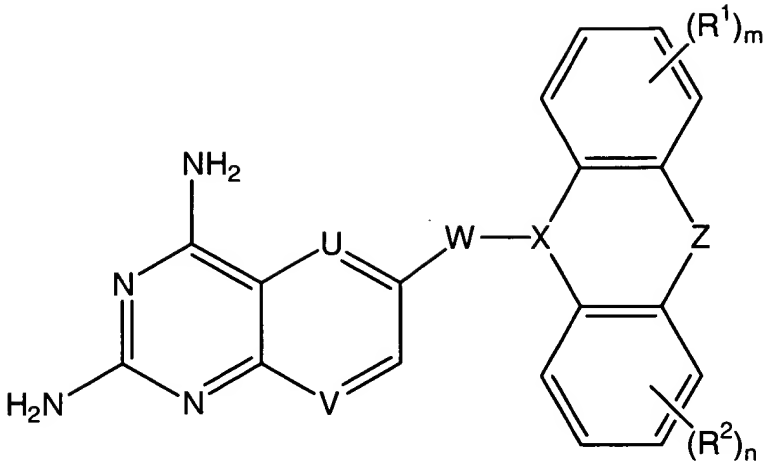
Z represents ~~a chemical bond, optionally substituted methylene,~~ optionally substituted ethylene~~,~~ or optionally substituted vinyl~~, optionally substituted azamethinyl, optionally substituted azamethylene, O, S, or optionally substituted N, or Z represents non-linked substituents on each phenyl group~~;

A3

each R^1, R^2 and R^3 independently may be halogen, amino, hydroxy, nitro, azido, optionally substituted alkyl ~~preferably~~, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted alkoxy, optionally substituted aminoalkyl, optionally substituted alkanoyl, optionally substituted alkylthio, optionally substituted alkylsulfinyl, optionally substituted alkylsulfonyl, optionally substituted carbocyclic aryl, or optionally substituted heteroaromatic, or optionally substituted heteroalicyclic, wherein at least one occurrence of R^3 is an amino group;

m and n are each independently an integer of from 0 to 4; o is an integer of from ~~0~~ 1 to 5 and pharmaceutically acceptable salts thereof.

6. (Presently Amended) A compound of the following Formula IV:



IV

A3

U and V are each independently optionally substituted carbon, or optionally substituted nitrogen;

W is a chemical bond, optionally substituted amino, optionally substituted alkylene having 1 to about 3 carbon atoms, or aminoalkylene having 1 nitrogen and 1 or 2 carbon atoms;

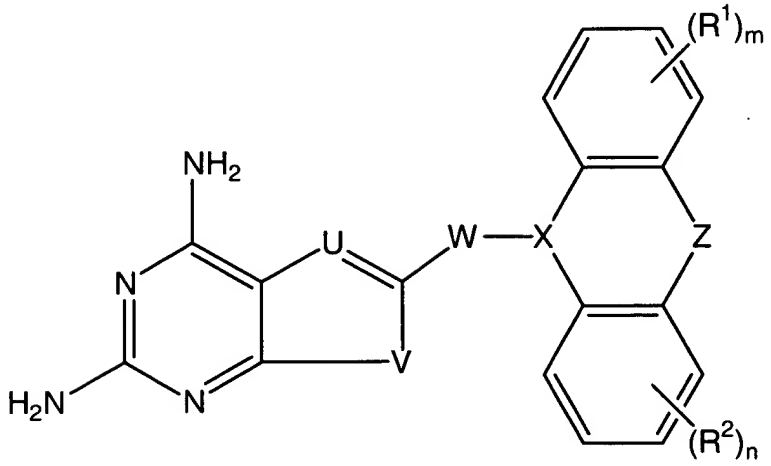
X is nitrogen ~~or carbon~~;

Z represents ~~a chemical bond, optionally substituted methylene,~~ optionally substituted ethylene~~,~~ or optionally substituted vinyl~~, optionally substituted azamethinyl, optionally substituted azamethylene, O, S, or optionally substituted N, or Z represents non-linked substituents on each phenyl group~~;

each R^1 and R^2 independently may be halogen, amino, hydroxy, nitro, azido, optionally substituted alkyl ~~preferably~~, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted alkoxy, optionally substituted aminoalkyl, optionally substituted alkanoyl, optionally substituted alkylthio, optionally substituted alkylsulfinyl, optionally substituted alkylsulfonyl, optionally substituted carbocyclic aryl, or optionally substituted heteroaromatic, or optionally substituted heteroalicyclic;

m and n are each independently an integer of from 0 to 4; and pharmaceutically acceptable salts thereof.

7. (Presently Amended) A compound of the following Formula IVA:



IVA

A3

U and V are each independently optionally substituted carbon, or optionally substituted nitrogen; or

V is O or S;

W is a chemical bond, optionally substituted amino, optionally substituted alkylene having 1 to about 3 carbon atoms, or aminoalkylene having 1 nitrogen and 1 or 2 carbon atoms;

X is nitrogen ~~or carbon~~;

Z represents ~~a chemical bond, optionally substituted methylene,~~ optionally substituted ethylene~~,~~ or optionally substituted vinyl~~, optionally substituted azamethinyl, optionally substituted azamethylene, O, S, or optionally substituted N, or Z represents non-linked substituents on each phenyl group~~;

each R^1 and R^2 independently may be halogen, amino, hydroxy, nitro, azido, optionally substituted alkyl ~~preferably~~, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted alkoxy, optionally substituted aminoalkyl, optionally substituted alkanoyl,

optionally substituted alkylthio, optionally substituted alkylsulfinyl, optionally substituted alkylsulfonyl, optionally substituted carbocyclic aryl, or optionally substituted heteroaromatic, or optionally substituted heteroalicyclic;

m and n are each independently an integer of from 0 to 4; and pharmaceutically acceptable salts thereof.

8. (Presently Amended) A compound of any one of claims 1, 3, 4, 5, 6 or 7 wherein Z is ~~$-CH_2-$~~, $-CH_2CH_2-$~~, NH, O, or S~~.

A3

9. (Original) A compound of any one of claims 1, 2, 5, 6 or 7 wherein W is a bond, CH_2, CH_2CH_2, or NH.

10. (Presently Amended) A compound of claim 1~~ wherein the compound is~~selected from the group consisting of:

~~N-(2,4-diaminopteridin-6-yl)methyl-N,N-diphenylamine;~~

~~2,4-diamino-6-(carbazol-5-yl)methylpteridine;~~

~~2,4-diamino-6-(9,10-dihydroacridin-9-yl)methylpteridine;~~

~~N-[(2,4-diaminopteridin-6-yl)methyl]phenoxazine;~~

~~N-[(2,4-diaminopteridin-6-yl)methyl]phenothiazine;~~

N-[(2,4-diaminopteridin-6-yl)methyl]-9,10-dihydrodibenz[*b*,*f*]azepine;

N-[(2,4-diaminopteridin-6-yl)methyl]dibenz[*b*,*f*]azepine;

~~N-[(2,4-diaminopyrido[2,3-*d*]pyrimidin-6-yl)methyl]-N,N-diphenylamine;~~

~~N-[(2,4-diaminopyrido[3,2-*d*]pyrimidin-6-yl)methyl]-N,N-diphenylamine;~~

~~N-[(2,4-diaminoquinazolin-6-yl)methyl]-N,N-diphenylamine;~~

~~N-[(2,4-diaminothieno[2,3-*d*]pyrimidin-5-yl)methyl]-N,N-diphenylamine;~~

~~N-[(2,4-diaminofuro[2,3-*d*]pyrimidin-5-yl)methyl]-N,N-diphenylamine;~~

~~N-[(2,4-diaminopyrimidin-6-yl)methyl-N,N-diphenylamine;~~

~~N-[(2,4-diaminopteridin-6-yl)methyl]carbazole;~~

~~N-[(2,4-diaminopyrido[2,3-*d*]pyrimidin-6-yl)methyl]carbazole;~~

~~N-[(2,4-diaminopyrido[3,2-*d*]pyrimidin-6-yl)methyl]carbazole;~~

A3 ~~N-[(2,4-diaminoquinazolin-6-yl)methyl]carbazole;~~

~~N-[(2,4-diaminothieno[2,3-*d*]pyrimidin-5-yl)methyl]carbazole;~~

~~N-[(2,4-diaminofuro[2,3-*d*]pyrimidin-5-yl)methyl]carbazole;~~

~~N-[(2,4-diaminopyrimidin-6-yl)methyl]carbazole;~~

~~N-[(2,4-diaminopteridin-6-yl)methyl]-9,10-dihydroacridine;~~

~~N-[(2,4-diaminopyrido[2,3-*d*]pyrimidin-6-yl)methyl]-9,10-dihydroacridine;~~

~~N-[(2,4-diaminopyrido[3,2-*d*]pyrimidin-6-yl)methyl]-9,10-dihydroacridine;~~

~~N-[(2,4-diaminoquinazolin-6-yl)methyl]-9,10-dihydroacridine;~~

~~N-[(2,4-diaminothieno[2,3-*d*]pyrimidin-5-yl)methyl]-9,10-dihydroacridine;~~

~~N-[(2,4-diaminofuro[2,3-*d*]pyrimidin-5-yl)methyl]-9,10-dihydroacridine;~~

~~N-[(2,4-diaminopyrimidin-6-yl)methyl]-9,10-dihydroacridine;~~

~~N-[(2,4-diaminopteridin-6-yl)methyl]phenoxazine;~~

~~9-[(2,4-diaminopyrido[2,3-*d*]pyrimidin-6-yl)methyl]phenoxazine;~~

~~9-[(2,4-diaminopyrido[3,2-*d*]pyrimidin-6-yl)methyl]phenoxazine;~~

~~9-[(2,4-diaminoquinazolin-6-yl)methyl]phenoxazine;~~

~~9-[(2,4-diaminothieno[2,3-*d*]pyrimidin-5-yl)methyl]phenoxazine;~~

~~9-[(2,4-diaminofuro[2,3-*d*]pyrimidin-5-yl)methyl]phenoxazine;~~

~~9-[(2,4-diaminopyrimidin-6-yl)methyl]phenoxazine;~~

~~N-[(2,4-diaminopteridin-6-yl)methyl]phenothiazine;~~

~~9-[(2,4-diaminopyrido[2,3-*d*]pyrimidin-6-yl)methyl]phenothiazine;~~

~~9-[(2,4-diaminopyrido[3,2-*d*]pyrimidin-6-yl)methyl]phenothiazine;~~

A3 ~~9-[(2,4-diaminoquinazolin-6-yl)methyl]phenothiazine;~~

~~9-[(2,4-diaminothieno[2,3-*d*]pyrimidin-5-yl]phenothiazine;~~

~~9-[(2,4-diaminofuro[2,3-*d*]pyrimidin-5-yl)methyl]phenothiazine;~~

~~9-[(2,4-diaminopyrimidin-5-yl)methyl]phenothiazine;~~

~~N-[(2,4-diaminopteridin-6-yl)methyl]-9,10-dihydrodibenz[*b*,*f*]azepine;~~

N-[(2,4-diaminopyrido[2,3-*d*]pyrimidin-6-yl)methyl]-9,10-dihydrodibenz[*b*,*f*]azepine;

N-[(2,4-diaminopyrido[3,2-*d*]pyrimidin-6-yl)methyl]-9,10-dihydrodibenz[*b*,*f*]azepine;

~~9~~N-[(2,4-diaminoquinazolin-6-yl)methyl]-9,10-dihydrodibenz[*b*,*f*]azepine;

~~9~~N-[(2,4-diaminothieno[2,3-*d*]pyrimidin-5-yl)methyl]-9,10-dihydrodibenz[*b*,*f*]azepine;

~~9~~N-[(2,4-diaminofuro[2,3-*d*]pyrimidin-5-yl)methyl]-9,10-dihydrodibenz[*b*,*f*]azepine;

~~9~~N-[(2,4-diaminopyrimidin-5-yl)methyl]-9,10-dihydrodibenz[*b*,*f*]azepine;

~~N-[(2,4-diaminopteridin-6-yl)methyl]dibenz[*b*,*f*]azepine;~~

~~9~~N-[(2,4-diaminopyrido[2,3-*d*]pyrimidin-6-yl)methyl]dibenz[*b*,*f*]azepine;

~~9~~N-[(2,4-diaminopyrido[3,2-*d*]pyrimidin-6-yl)methyl]dibenz[*b*,*f*]azepine;

~~9~~N-[(2,4-diaminoquinazolin-6-yl) methyl]dibenz[*b*,*f*]azepine;

~~9~~N-[(2,4-diaminothieno[2,3-*d*]pyrimidin-5-yl)methyl]dibenz[*b*,*f*]azepine;

~~9~~N-[(2,4-diaminofuro[2,3-*d*]pyrimidin-5-yl)methyl]dibenz[*b*,*f*]azepine;

~~9~~N-[(2,4-diaminopyrimidin-6-yl)methyl]dibenz[*b*,*f*]azepine;

~~N-(2,4-diaminopyrido[2,3-*d*]pyrimidin-6-yl)benzhydrylamine;~~

~~N-(2,4-diaminoquinazolin-6-yl)benzhydrylamine;~~

~~N-[(2,4-diaminopyrimidin-5-yl)methyl]benzhydrylamine;~~

A3 ~~N-[(2,4-diaminopyrimidin-5-yl)ethyl]benzhydrylamine;~~

~~9-[N-(2,4-diaminoquinazolin-6-yl)amino]fluorene;~~

~~9-[N-(2,4-diaminoquinazolin-5-yl)methylamino]fluorene;~~

~~9-[N-[2-(2,4-diaminoquinazolin-5-yl)ethyl]amino]fluorene;~~

~~5-[N-(2,4-diaminopyrido[2,3-*d*]pyrimidin-6-yl)amino]-5*H*-10,11-dihydro-dibenzo[*a*,*d*]cycloheptene;~~

~~5-[N-(2,4-diaminoquinazolin-6-yl)amino]-5*H*-10,11-dihydrodibenzo[*a*,*d*]cycloheptene;~~

~~5-[N-(2,4-diaminopyrimidin-5-yl)methylamino]-5*H*-10,11-dihydrodibenzo-[*a*,*d*]cycloheptene;~~

~~5-[N-[2-(2,4-diaminopyrimidin-5-yl)ethyl]amino]-5*H*-10,11-dihydrodibenzo-[*a*,*d*]cycloheptene;~~

~~5-[N-(2,4-diaminopyrimidin-[2,3-*d*]pyrimidin-6-yl)amino]-5*H*-dibenzo-[*a*,*d*]cycloheptene;~~

~~5-[N-(2,4-diaminoquinazolin-6-yl)amino]-5*H*-dibenzo-[*a*,*d*]cycloheptene;~~

~~5-[N-(2,4-diaminopyrimidin-5-yl)methylamino]-5*H*-dibenzo[*a*,*d*]cycloheptene; and~~

~~5-[N-[2-(2,4-diaminopyrimidin-5-yl)ethyl]amino]-5*H*-dibenzo[*a*,*d*]cycloheptene;~~ and

pharmaceutically acceptable salts thereof.

11. (Presently Amended) A method of treating a patient suffering from or susceptible to a parasitic disease, comprising administering to the patient an effective amount of a compound of ~~any one of~~ claim 1 or claim -10.

12. (Presently Amended) A method of treating a patient suffering from or susceptible to toxoplasmosis, comprising administering to the patient an effective amount of a compound of ~~any one of~~ claim 1- or claim 10.

A3

13. (Presently Amended) The method of claim 11 ~~or 12~~ wherein the patient's immune system is suppressed.

14. (Presently Amended) The method of claim 11 ~~or 12~~ wherein the patient has a retrovirus infection.

15. (Presently Amended) The method of claim 11 ~~or 12~~ wherein the patient has an HIV infection.

16. (Presently Amended) The method of claim 11 ~~or 12~~ wherein the patient is suffering from AIDS.

17. (Presently Amended) The method of claim 11 ~~or 12~~ wherein the patient has received or ~~will be~~is receiving immunosuppressive cancer chemotherapy treatment.

18. (Presently Amended) A method of treating a patient suffering from or susceptible to cryptosporidiosis, leischmaniasis or malaria, comprising administering to the patient an effective amount of a compound of ~~any one of claims 1-10~~ claim1 or claim 10.

19. (Presently Amended) A method of treating a patient suffering from or susceptible to an infection of *Toxoplasma gondii*, *Pnemocytis carinii*, *Cryptosporidium*, *Leishmania*, *Plasmodium vivax*, *P. falciparum*, *P. malarie*, or *P. ovale*, comprising administering to the patient an effective amount of a compound of claim 1 or claim 10.

A3

20. (Presently Amended) A method of treating a patient suffering from or susceptible to a *Toxoplasma gondii* infection, comprising administering to the patient an effective amount of a compound of claim 1 or claim 10.

21. (Presently Amended) A method of treating a patient suffering from or susceptible to tuberculosis, comprising administering to the patient an effective amount of a compound of claim 1 or claim 10.

22. (Presently Amended) A method of ~~any one of~~ claims 11-~~21~~ wherein the disease is treated without administration of a sulfa drug to the patient.

23. (Presently Amended) The method of ~~any one of~~ claims 11-~~22~~ wherein the patient is a mammal.

24. (Presently Amended) ~~A~~ The method of ~~any one of~~ claims 11-~~22~~ wherein the patient is a human.

25. (Presently Amended) A method of claim 11~~, 12 or 20~~ wherein the patient is a livestock animal, poultry or a domesticated animal.

26. (Presently Amended) A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound of any one of claims 1-10.

27. (New) The method of claim 12 wherein the patient's immune system is suppressed.

A3

28. (New) The method of claim 12 wherein the patient has a retrovirus infection.

29. (New) The method of claim 12 wherein the patient has an HIV infection.

30. (New) The method of claim 12 wherein the patient is suffering from AIDS.

31. (New) The method of claim 12 wherein the patient is a human.

32. (New) The method of claim 20 wherein the patient is a human.

33. (New) The method of claim 12 wherein the patient is a livestock animal, poultry or a domesticated animal.

A3

34. (New) The method of claim 20 wherein the patient is a livestock animal, poultry or a domesticated animal.